



uOttawa

SSHRC  CRSH

Equity in Stroke Recovery: Overcoming Bias and Disparities in Rehabilitation Access

Ottawa Stroke Summit, September 27, 2024

Katrine Sauvé-Schenk, PhD, OT Reg. (Ont.)

PRESENTER DISCLOSURE

- **Presenter:** Katrine Sauvé-Schenk
- **Relationships with commercial interests:**
 - **Grants/Research Support:** Social Sciences and Humanities Research Council of Canada
 - **Speakers Bureau/Honoraria:** --
 - **Consulting Fees:** --
 - **Other:** Current member of the Champlain Regional Stroke Network Community and Long-Term Care committee

MITIGATING POTENTIAL BIAS

- **Presenter:** Katrine Sauvé-Schenk
- **Mitigation of conflict:** Presentation will include a variety of sources of information in addition to the presenter's research

LEARNING OBJECTIVES

- 1) Learning Objective 1:** Explore the disparities in available rehabilitation services for the low-income population, including the underlying factors contributing to these discrepancies such as socioeconomic status, geographic location, and systemic biases.
- 2) Learning Objective 2:** Discuss strategies for mitigating bias and addressing disparities in stroke rehabilitation access.
- 3) Learning Objective 3:** Identify resources and support systems available in our region to ensure equitable and fair treatment for persons with stroke; including community organizations, programs and healthcare initiatives aimed at addressing the needs of disadvantaged populations.

Those who have contributed to these projects

Researchers, co-investigators, collaborators, students and research assistants in alphabetical order:

Sarah Bernard

Céline Boulé-Perroni

Mary Egan

Colette Doherty

Claire-Jehanne Dubouloz-Wilner

Patrick Duong

François Durand

Sandra Houle

Betsy Kristjansson

Madona Obeid

Geneviève Ouellet Thérien

Cathy Pacifici

Lisa Sheehy

Samantha Samonte-Brown

Jacinthe Savard

Sebastien Savard

Let's make sure we have a common understanding of these concepts...

Equity in Stroke Recovery: Overcoming Bias and Disparities in Rehabilitation Access

Let's make sure we have a common understanding of these concepts...

Equity in **Stroke Recovery**: Overcoming Bias and Disparities in **Rehabilitation** Access

Let's make sure we have a common understanding of these concepts...

Equity in Stroke Recovery: Overcoming Bias and Disparities in Rehabilitation Access

Let's make sure we have a common understanding of these concepts...

Equity in Stroke Recovery: Overcoming Bias and Disparities in Rehabilitation Access

Let's think about this...

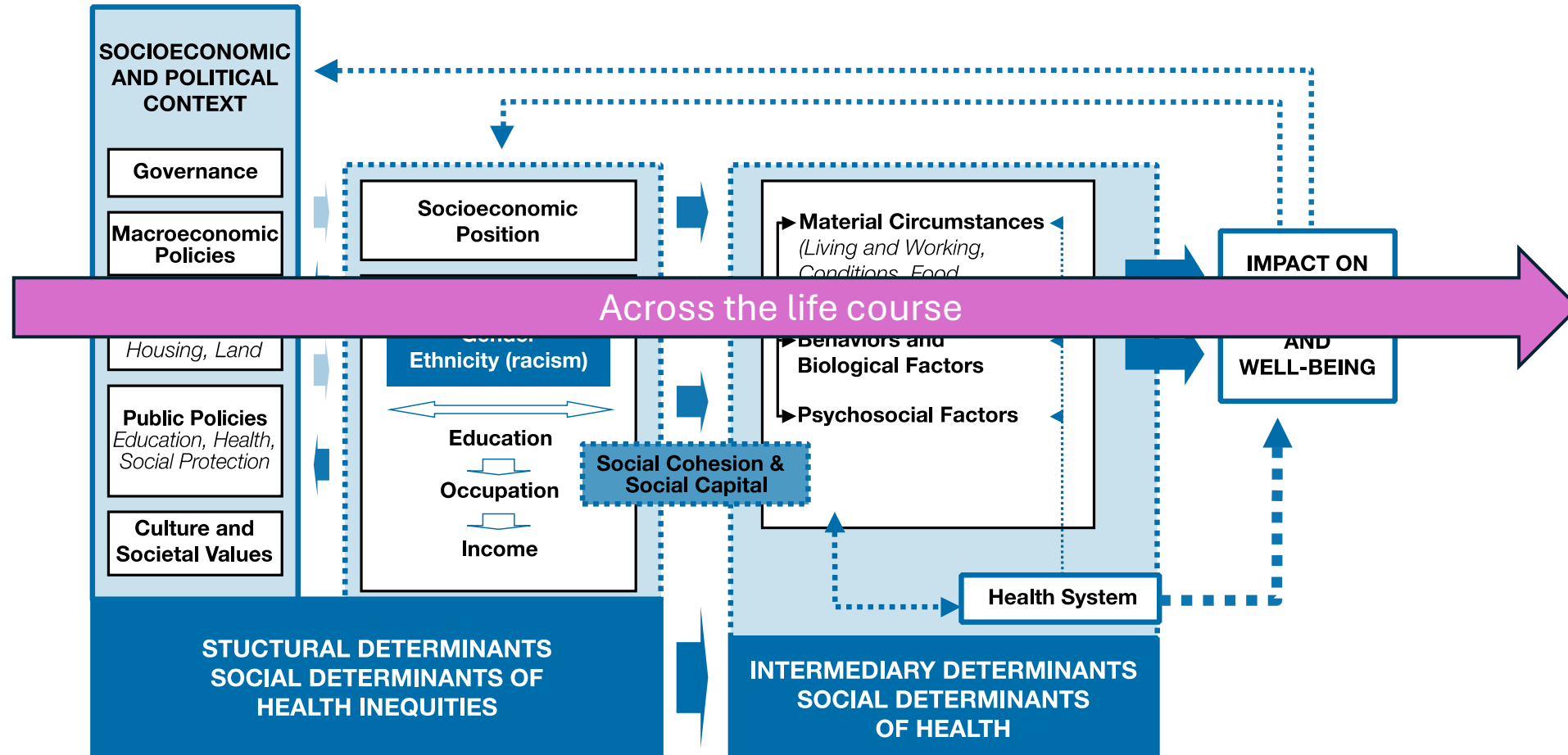
Have you witnessed disparities between people who have had a stroke in y(our) region?

Health inequity



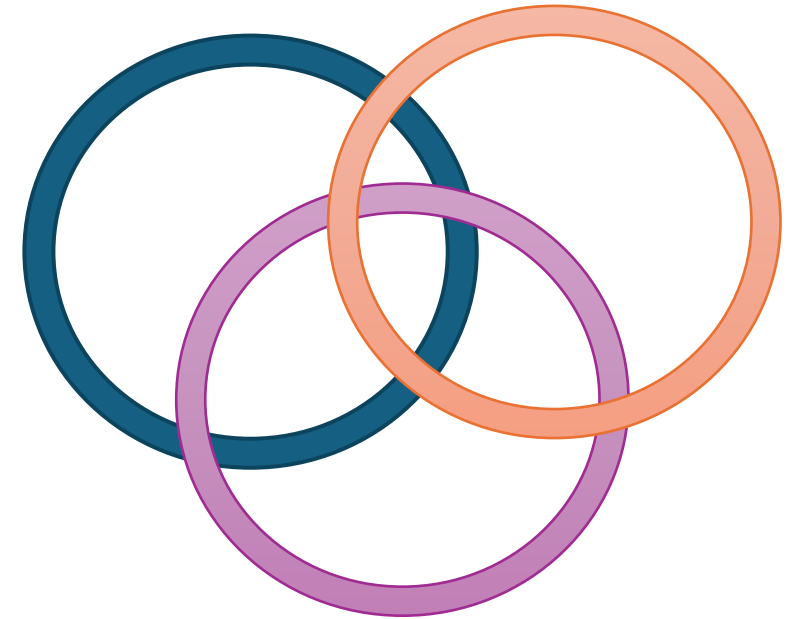
Equity and social determinants of health

Figure A. Final form of the CSDH conceptual framework



Social determinants of health and stroke

- Geography
- Race/ethnicity
- Income/ socio-economic status
- ...

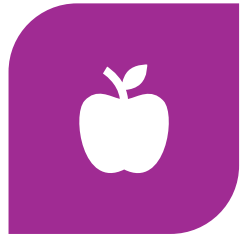


intersectionality

After stroke, there is generally a reduction in income/earnings, but there is a greater relative loss of income for those who were in a low-income situation at time of stroke.

Stroke and low-income

Stroke and low income: reported difficulties



ACCESSING HEALTHY FOOD



AFFORDING MEDICATION



OBTAINING SAFETY
EQUIPMENT

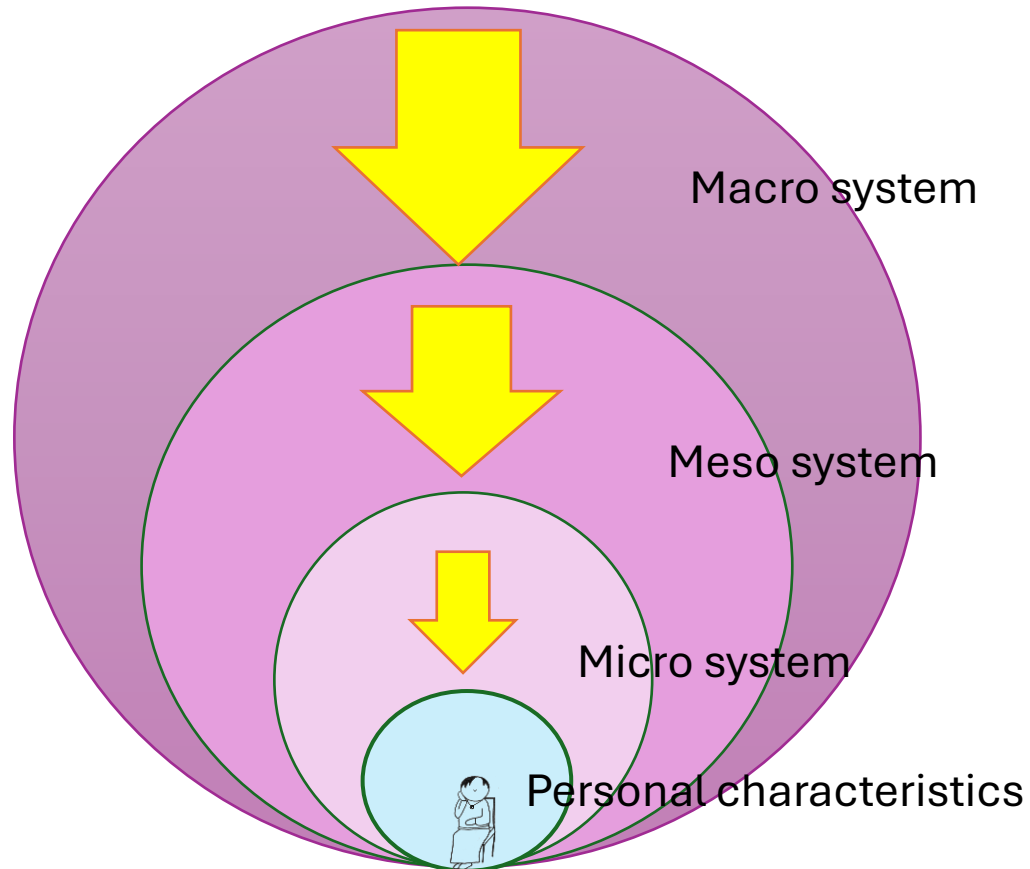


MAINTAINING HOUSING



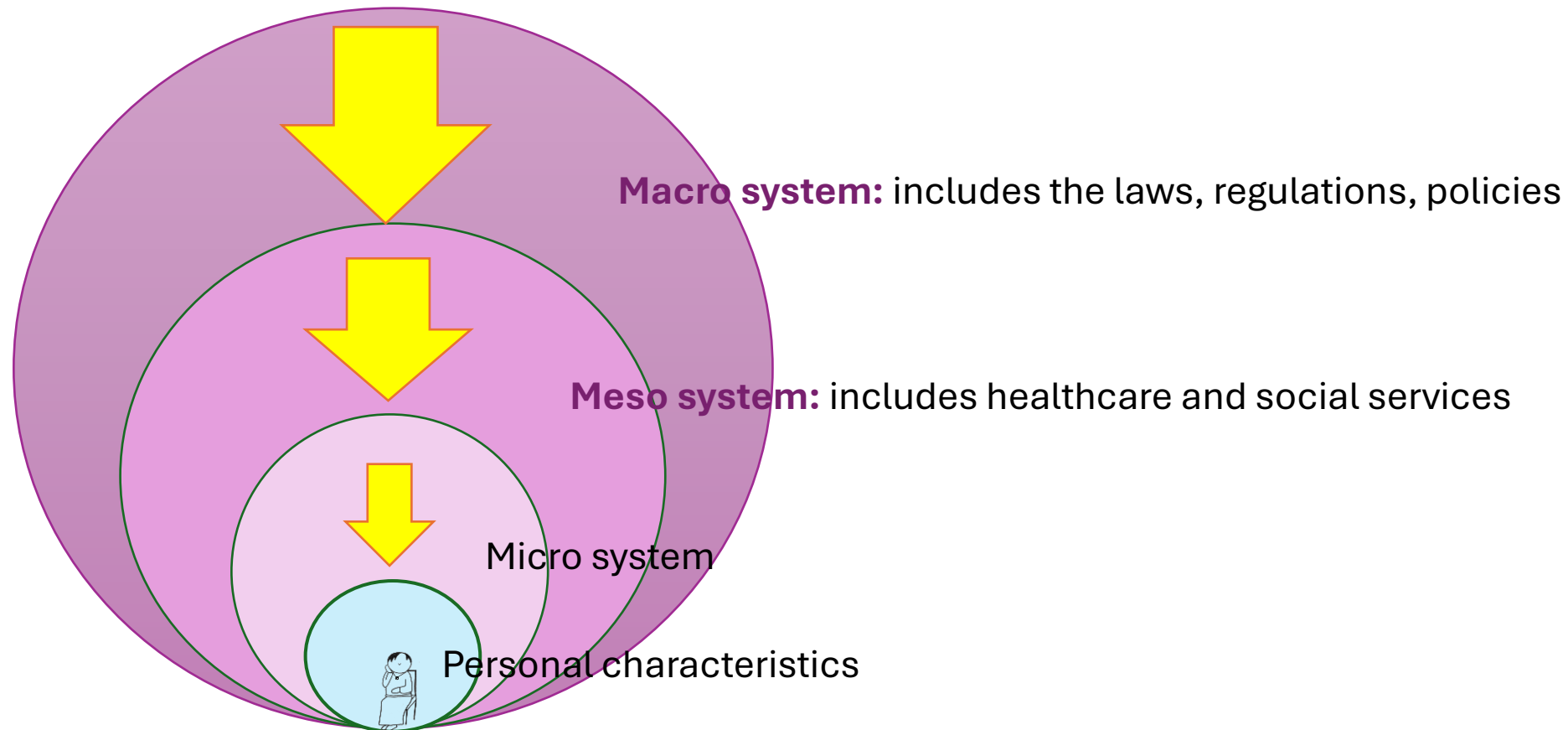
RETURNING TO
PARTICIPATION IN
MEANINGFUL OCCUPATIONS

Stroke and low income: return to participation



Relative influence of different environmental levels on post-stroke participation

Stroke and low income: return to participation



People who have experienced a stroke often have challenges finding and accessing social services and community resources.



**Rehabilitation, Recovery and Community
Participation following Stroke**

**Part Two: Transitions and Community Participation
Following Stroke**
Update 2019

4.4 Participation in Social and Life Roles Following Stroke: *Vocational Roles*

- vi. Review financial concerns, sustainability and benefit options during admission and/or prior to discharge, and later in follow-up assessments and transitions. [Evidence Level C].

4.7 Participation in Social and Life Roles Following Stroke: *Disability Supports in the Community*

- i. Healthcare professionals across settings may provide people with stroke, their families and caregivers with information and linkages regarding access to disability support services within their region [Evidence Level C].
- c. Timely completion of appropriate documentation and applications by healthcare team members as required in collaboration with people with stroke, their families and caregivers can help to minimize delays with accessing eligible services [Evidence level C].
- d. Collaboration between designated members of the healthcare team and persons with stroke, families and caregivers can help navigate systems and ensure appropriate services and equipment are accessed in a timely manner [Evidence Level C].

Let's think about this...

In your role, how do you support people living (or at risk of living) in low-income situations to find and access such services?

Stroke and low income: along the continuum

In acute care and in/outpatient rehabilitation in one Ontario sub-region:

- Immediate care needs, safety and discharge were the priority.
- No overarching plan existed to address needs of those with low-income.

Stroke and low income: along the continuum

Barriers included:

- High workload
- Competing priorities
- Time constraints
- Limited knowledge about services and resources

Stroke and low-income : what could we do?

Consider income and financial issues as a team

Discuss financial struggles and service/resource needs as early as possible and continue along the entire continuum of care

Learn about the system and its limitations

Create lists of resources and share tailored information to meet the person/ family's needs

Clearly communicate findings about finances/income with the next service

WHO do you ask about financial struggles and income?



It is difficult to share information about financial struggles.



Asking about perceived financial barriers is a better indicator than income.

Perhaps we should ASK EVERYONE.

HOW do you ask about financial struggles and income?

“Do you (ever) have difficulty making ends meet at the end of the month.” (Brcic et al., 2011) (Pinto et al., 2016)

“How will you manage if you can’t go back to work?”

Quick poll

Which do you think are doable?

Consider income and financial issues as a team

Discuss financial struggles and service/resource needs as early as possible and continue along the entire continuum of care

Learn about the system and its limitations

Create lists of resources and share tailored information to meet the person/ family's needs

Clearly communicate findings about finances/income with the next service

Preliminary results of a pilot study: implementing interventions to support low-income stroke survivors to access services and resources

Collaborative research with professionals on the stroke unit of a Hôpital Montfort:

Céline B.-P.
Colette D.
Madona O.
Geneviève O.-T.
Cathy P.

Concerns raised by the group included

- Relied heavily on the social worker.
- Had no standardized process to identify patients with financial struggles.
- Lacked information about specific resources and services to prepare these patients for discharge to the community.

Consider income and financial issues as a team

Ask about current and potential financial struggles and need for social services and community resources while in acute care

Learn about the system and its limitations (ongoing)

Document financial information / concerns in the patient chart (discharge)

Create list of resources that can be tailored to the specific needs

Interventions implemented by the group

The group wondered...

Document financial information / concerns in the patient chart (discharge)

...how their assessment results could be shared and used in the next steps of stroke care (continuity of care).

Advocacy?

...if income/discharge destination influences acceptance to [stroke] rehabilitation.

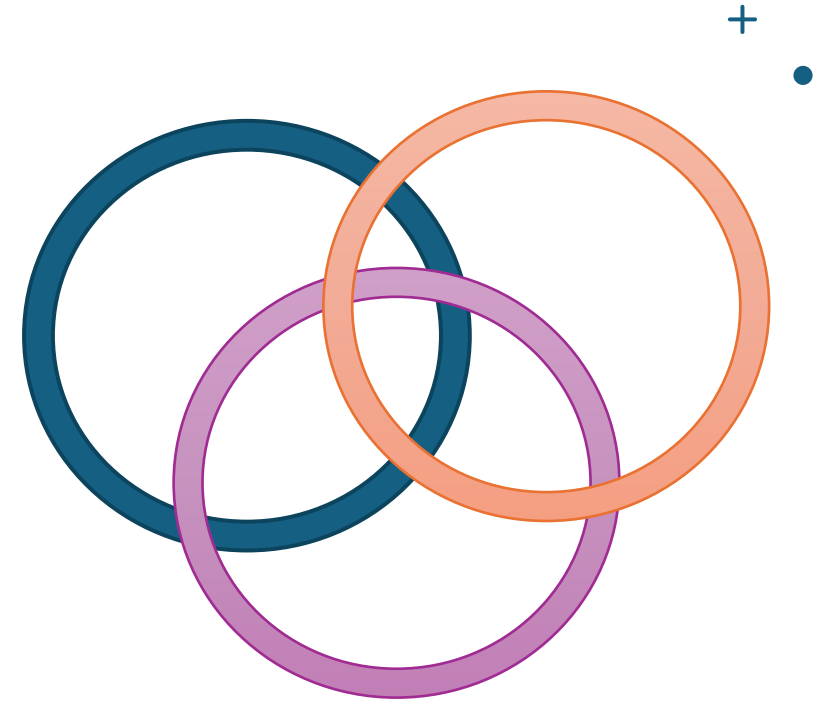
Preliminary results: Changes in thinking and practice are possible

"Honestly, since we've been talking about this [in this group], I always ask, every time in my initial evaluation, I ask [about financial status]."

“I used to think that the discharge destination was part of the decision in whether the patient was accepted or not [to rehab], but now, I know it shouldn't be.”

Next steps

Together, should we be exploring stroke disparities along the continuum of care in our region?



+
◦ • Merci beaucoup!

Questions?



References

- Andrew, N. E., Busingye, D., Lannin, N. A., Kilkenny, M. F., & Cadilhac, D. A. (2018). The Quality of Discharge Care Planning in Acute Stroke Care: Influencing Factors and Association with Postdischarge Outcomes. *Journal of Stroke and Cerebrovascular Diseases*, 27(3), 583–590. <https://doi.org/10.1016/j.jstrokecerebrovasdis.2017.09.043>
- Bernard, S., Sauvé-Schenk, K., & Egan, M. (2019). Low Income and Stroke Rehabilitation : A Tale of Two Clients. *The Open Journal of Occupational Therapy*, 7(2), Article 13. <https://doi.org/10.15453/2168-6408.1487>
- Brcic, V., Eberdt, C., & Kaczorowski, J. (2011). Development of a Tool to Identify Poverty in a Family Practice Setting : A Pilot Study, 2011. <https://doi.org/10.1155/2011/812182>
- Campbell, D. J., Manns, B. J., Weaver, R. G., Hemmelgarn, B. R., King-Shier, K. M., & Sanmartin, C. (2017). The association between financial barriers and adverse clinical outcomes among patients with cardiovascular-related chronic diseases: A cohort study. *BMC Medicine*, 15(33), 1–13. <https://doi.org/10.1186/s12916-017-0788-6>
- Cruz-Flores, S., Rabinstein, A., Biller, J., Elkind, M. S. V, Griffith, P., Gorelick, P. B., ... Valderrama, A. L. (2011). Racial-ethnic disparities in stroke care: the American experience: a statement for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke; a Journal of Cerebral Circulation*, 42(7), 2091–2116. <https://doi.org/10.1161/STR.0b013e3182213e24>
- Duong, P., Egan, M., Meyer, M., Morrison, T., & Sauvé-Schenk, K. (2024). The impact of stroke on employment income : A cohort study using hospital and income tax data in Ontario, Canada. *Clinical Rehabilitation*, 38(8), 1109–1117. <https://doi.org/10.1177/02692155241249345>
- Egan, M., Kubina, L.-A., Dubouloz, C.-J., Kessler, D., Kristjansson, E., & Sawada, M. (2015). Very low neighbourhood income limits participation post stroke: preliminary evidence from a cohort study. *BMC Public Health*, 15(1), 1–7. <https://doi.org/10.1186/s12889-015-1872-5>
- Fleet, R., Bussi, S., Tounkara, F. K., Le, F., Plant, J., Poitras, J., ... Dupuis, G. (2018). Rural versus urban academic hospital mortality following stroke in Canada. *PLoS ONE*, 13(1), 1–11. <https://doi.org/https://doi.org/10.1371/journal.pone.0191151>
- Ganesh, A., King-Shier, K., Manns, B. J., Hill, M. D., & Campbell, D. J. T. (2017). Money is brain: Financial barriers and consequences for Canadian stroke patients. *Canadian Journal of Neurological Sciences*, 44(02), 146–151. <https://doi.org/10.1017/cjn.2016.411>
- Garland, A., Jeon, S. H., Stepner, M., Rotermann, M., Fransoo, R., Wunsch, H., ... Sanmartin, C. (2019). Effects of cardiovascular and cerebrovascular health events on work and earnings: A population-based retrospective cohort study DATA SET. *Annals of Internal Medicine*, 191(1), E3–E10. <https://doi.org/10.1503/cmaj.181238>

Garnett, A., Ploeg, J., Markle-Reid, M., & Strachan, P. H. (2022). Factors impacting the access and use of formal health and social services by caregivers of stroke survivors: an interpretive description study. *BMC Health Services Research*, 22(1), 1–15. <https://doi.org/10.1186/s12913-022-07804-x>

Levesque, J. F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health*, 12(1), 1–9. <https://doi.org/10.1186/1475-9276-12-18>

Luker, J., Murray, C., Lynch, E., Bernhardsson, S., Shannon, M., & Bernhardt, J. (2017). Carers' Experiences, Needs, and Preferences During Inpatient Stroke Rehabilitation: A Systematic Review of Qualitative Studies. *Archives of Physical Medicine and Rehabilitation*, 98(9), 1852-1862.e13. <https://doi.org/10.1016/j.apmr.2017.02.024>

McGibbon, E., & McPherson, C. (2011). Applying Intersectionality & Complex Theory to Address the Social Determinants of Women's Health. *Women's Health and Urban Life*, 10(1), 59–86.

Mountain, A., Patrice Lindsay, M., Teasell, R., Salbach, N. M., de Jong, A., Foley, N., ... Cameron, J. I. (2020). Canadian Stroke Best Practice Recommendations: Rehabilitation, Recovery, and Community Participation following Stroke. Part Two: Transitions and Community Participation Following Stroke. *International Journal of Stroke*, 15(7), 789–806. <https://doi.org/10.1177/1747493019897847>

Pinto, A., Glattstein-Young, G., Mohamed, A., Bloch, G., Leung, F.-H., & Glazier, R. (2016). Building a Foundation to Reduce Health Inequities : Routine Collection of Sociodemographic Data in Primary. *J Am Board Fam Med*, 29(3), 348–355. <https://doi.org/10.3122/jabfm.2016.03.150280>

Reshetnyak, E., Ntamatungiro, M., Pinheiro, L. C., Howard, V. J., Carson, A. P., Martin, K. D., & Safford, M. M. (2020). Impact of Multiple Social Determinants of Health on Incident Stroke. *Stroke*, 51(August), 2445–2453. <https://doi.org/10.1161/STROKEAHA.120.028530>

Sauvé-Schenk, K., Duong, P., Samonte-Brown, S., Sheehy, L., Trudelle, M., & Savard, J. (2023). Supporting post-stroke access to services and resources for individuals with low income: understanding usual care practices in acute care and rehabilitation settings. *Disability and Rehabilitation*, 0(0), 1–9. <https://doi.org/10.1080/09638288.2023.2199462>

Sauvé-Schenk, K., Duong, P., Savard, J., & Durand, F. (2020). A systematic review of social service and community resource interventions following stroke. *Disability and Rehabilitation*, 0(0), 1–10. <https://doi.org/10.1080/09638288.2020.1851780>

Sauvé-Schenk, K. M., Egan, M. Y., Dubouloz-Wilner, C.-J., & Kristjansson, E. (2019). Influence of low income on return to participation following stroke. *Disability and Rehabilitation*, 0(0), 1–9. <https://doi.org/10.1080/09638288.2019.1570355>

World Health Organization. (2018). Health inequities and their causes. Retrieved September 24, 2024, from <https://www.who.int/news-room/facts-in-pictures/detail/health-inequities-and-their-causes#:~:text=Health inequities are differences in,%2C live%2C work and age.%0D%0A>

World Health Organization (WHO). (2010). *A Conceptual Framework for Action on the Social Determinants of Health*. Geneva, Switzerland: WHO.